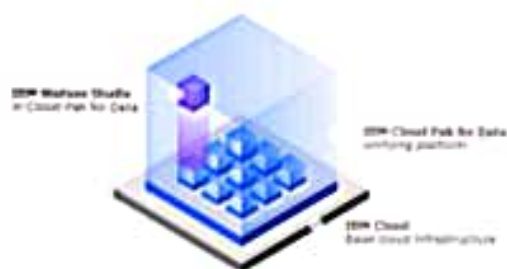


# Watson Studio-jj

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## Watson Studio in Cloud Pak for Data

Watson Studio is one of the core services in Cloud Pak for Data as a Service. Build, deploy and manage AI models, and optimize decisions on IBM Cloud Pak for Data.

[Launch in IBM Cloud Pak for Data](#)

IBM Watson Studio is part of IBM Cloud Pak for Data and serves as the data science capability of the data fabric architecture.

### myPaaS links

#### Documentation

Learn about tools, features, and how to perform a wide variety of Data and AI tasks.

#### Learning path

Start a step-by-step tutorial to get up and running quickly.

#### Videos

Watch videos to learn about Watson Studio and Cloud Pak for Data as a Service.

[IBM](#)

IBM Watson Studio

Search in your workspaces

Buy

Administration

Help

IBM Watson Studio

Step through implementing a Data fabric use case in a sample project.

Create a project for your team to prepare data, find insights, or build models.

Stay current with new features, enhancements, and other changes.

Quick start

Create data pipelines with DataStage

Build customer profiles with IBM Hunch 360 with Watson

Catalog and govern data with Watson Knowledge Catalog

Build and manage ML models with Watson Studio

Query data anywhere with Watson Query

What's new

Manage settings for data protection

Projects

ECG Model

Yesterday at 08:52 PM

ECG\_classified\_model

Nov 11, 2022 07:30 PM

ECG\_Classification

Nov 11, 2022 01:54 PM

New in gallery

NOTEBOOK

Use AutoAI and Lale to create and deploy models

Notifications

Online deployment failed

The online deployment "ECG" in space [ECG\\_imageclassification](#) encountered an error.

Today at 01:52 AM

Deployments

Run\_deploy

Nov 05, 2022 10:49 PM

ECG\_imageclassification

Yesterday at 11:35 PM

IBM Watson Studio

Search in your workspaces

IBM Project Assistant

Launch IDE

Projects / ECD Model

OverviewAssetsJobsManage

Find assets

Import assets

New asset

4 assets

All assets

Asset types

- Data3
- Notebooks1

All assets

Name	Last modified
ibm_project Notebook	9 hours ago Modified by you
fig_5901.png PNG	9 hours ago Modified by you
fig_5897.png PNG	11 hours ago Modified by you
data.zip application/x-zip-compressed	12 hours ago Modified by you

Data in this project

Drop data files here or  
browse for files to upload

Find assets

Import assets

New asset

## Data in this project

Drop data files here or  
browse for files to upload

4 assets

All assets

### Asset types

Data

Notebooks

## All assets

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1 of 1 pages

```
In [1]: pwd

Out[1]: "/home/runner/work/"

In [3]: !pip install keras
!pip install tensorflow
```

```
Requirement already satisfied: Keras in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (3.7.0)
Requirement already satisfied: tensorflow in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (2.7.2)
Requirement already satisfied: keras-preprocessing>1.1.1 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (1.1.2)
Requirement already satisfied: tensorflow-io-gcs-filesystem>0.21.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (0.25.1)
Requirement already satisfied: gast>0.5.0,≤0.2.1 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (0.4.0)
Requirement already satisfied: wheel<1.0,≥0.32.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (0.37.0)
Requirement already satisfied: h5py>2.9.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (3.2.1)
Requirement already satisfied: protobuf>3.9.2 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (3.20.3)
Requirement already satisfied: tensorboard>2.7 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (2.7.0)
Requirement already satisfied: google-pasta>0.1.1 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (0.2.0)
Requirement already satisfied: numpy>=1.14.5 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (1.20.3)
Requirement already satisfied: flatbuffers<1.0,≥1.12 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (2.0)
Requirement already satisfied: six>=1.12.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (1.15.0)
Requirement already satisfied: wrapt>=1.11.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (1.12.1)
Requirement already satisfied: termcolor>1.1.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (1.1.0)
Requirement already satisfied: keras<2.8,≥2.7.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (2.7.0)
Requirement already satisfied: opt-einsum>2.3.2 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (3.3.0)
Requirement already satisfied: absl-py>0.4.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (0.12.0)
Requirement already satisfied: typing-extensions>=3.6.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (4.1.1)
Requirement already satisfied: grpcio<2.0,≥1.34.1 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (1.42.0)
Requirement already satisfied: tensorflow-estimator<2.8,≥2.7.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (2.7.0)
Requirement already satisfied: astorparse>=1.0.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (1.0.3)
```

```

In [1]: train_datagen = ImageDataGenerator(rescale = 1./255, shear_range = 0.2, zoom_range = 0.2, horizontal_flip = True)
test_datagen = ImageDataGenerator(rescale = 1./255)

In [2]: import os, types
import pandas as pd
from botocore.client import Config
import ibm_botocore

def __iter__(self): return 0

# @hidden_cell
# the following code accesses a file in your IBM Cloud Object Storage. It includes your credentials,
# you might want to remove these credentials before you share the notebook.
cos_client = ibm_botocore.client(service_name='s3',
    ibm_api_key_id='d9a518f5c9ee-9e57bc9210119d9e0f9e5409c12a',
    ibm_auth_endpoint='https://iam.cloud.ibm.com/oidc/token',
    config=Config(signature_version='auth'),
    endpoint_url='https://s3.private.us.cloud-object-storage.appdomain.cloud')

bucket = 'ecgmodel-dsoutdelete-gr-eplm3albf00d'
object_key = 'data.zip'

streaming_body_1 = cos_client.get_object(Bucket=bucket, Key=object_key)['Body']

# Your data file was loaded into a botocore.response.StreamingBody object.
# Please read the documentation of the botocore and pandas to learn more about the possibilities to load the data.
# ibm_botocore documentation: https://ibm.github.io/ibm-cos-sdk-python/
# pandas documentation: http://pandas.pydata.org/

```

